

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT  
Pursuant to Section 13 OR 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 6, 2019

**Energy Recovery, Inc.**

(Exact Name of Registrant as Specified in its Charter)

Delaware  
(State or Other Jurisdiction of Incorporation)

001-34112  
(Commission File Number)

01-0616867  
(I.R.S. Employer Identification No.)

1717 Doolittle Dr. San Leandro, CA 94577  
(Address if Principal Executive Offices)(Zip Code)

510-483-7370  
(Registrant's telephone number, including area code)

Not applicable  
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934.

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.001 par value	ERII	Nasdaq Stock Market

**Item 7.01 Regulation FD Disclosure**

The Company is furnishing with this report an investor presentation that will be used by the Company during meetings with investors and analysts. The presentation is attached hereto as Exhibit 99.1, which is incorporated herein by reference and will also be posted on our website at <http://www.energyrecovery.com>.

The Company is not undertaking to update this presentation. This report is not intended as a statement concerning the materiality of any information contained in the presentation.

The information furnished in this Item 7.01 shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that Section, nor shall such information be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits

<u>Exhibit Number</u>	<u>Description</u>
99.1	<a href="#">Management Presentation.</a>

**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: May 6, 2019

Energy Recovery, Inc.

By: /s/ William Yeung  
William Yeung  
General Counsel

# ENERGY RECOVERY INVESTOR PRESENTATION

(NASDAQ: ERII)

May 2019



This presentation contains forward-looking statements within the “Safe Harbor” provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements in this report include, but are not limited to, statements about our expectations, objectives, anticipations, plans, hopes, beliefs, intentions, or strategies regarding the future. Forward-looking statements that represent our current expectations about future events are based on assumptions and involve risks and uncertainties. If the risks or uncertainties occur or the assumptions prove incorrect, then our results may differ materially from those set forth or implied by the forward-looking statements. Our forward-looking statements are not guarantees of future performance or events. Words such as “expects,” “anticipates,” “believes,” “estimates,” variations of such words, and similar expressions are also intended to identify such forward-looking statements.

These forward-looking statements are subject to risks, uncertainties, and assumptions that are difficult to predict; therefore, actual results may differ materially and adversely from those expressed in any forward-looking statements. You should not place undue reliance on these forward-looking statements, which reflect management’s opinions only as of the date of this presentation. All forward-looking statements included in this presentation are subject to certain risks and uncertainties, which could cause actual results to differ materially from those projected in the forward-looking statements, as disclosed from time to time in our reports on Forms 10-K, 10-Q, and 8-K as well as in our Annual Reports to Stockholders and, if necessary, updated in our quarterly reports on Form 10 Q or in other filings. We assume no obligation to update any such forward-looking statements. It is important to note that our actual results could differ materially from the results set forth or implied by our forward-looking statements.

**Seawater Reverse Osmosis (SWRO) Desalination Continues to Drive Growth**

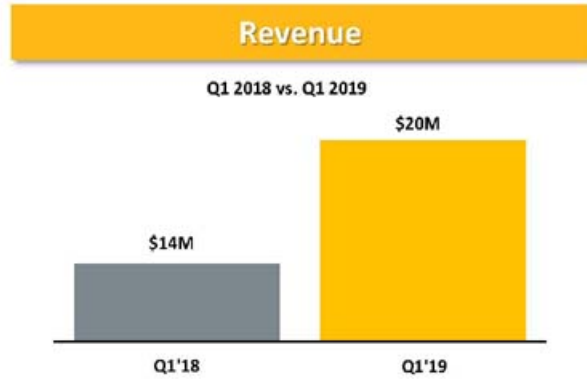
- Record first quarter revenue of \$16M, 45% growth year on year
- 20,000th PX Pressure Exchanger shipped during Q1 2019
- Increasing global water demand provides positive outlook for 2019 and beyond
  - Record level backlog and project pipeline drive future optimism
  - Doubling manufacturing capacity over 18 months to meet anticipated demand
- Potential incremental demand from retrofit opportunities as aging thermal desalination plants switch to SWRO
  - Nearly 23 million cubic meters/day of thermal commissioned 1980 – 2018<sup>1</sup>
  - Potential for 100 – 150 new SWRO mega projects to maintain current supply<sup>2</sup>
- Extending upper bound of growth forecast to low teens; lower bound remains at 5%

**Focus Remains on VorTeq Commercialization**

- Rigorous testing ongoing at our Commercial Development Center outside Houston, TX
- Material advancements on system level design enhancements identified for commercialization
- Continuous testing capabilities allow for shorter R&D cycles, driving more rapid progress

**Strong Q1 Results**

- 43% revenue growth year-over-year driven by water segment
- Water demand outlook continues to strengthen
- Net cash (and securities) position of over \$91M



**Compelling Product Gross Margins**

- Profitability driven by PX Pressure Exchanger sales
- High margins expected to continue for foreseeable future



# ABOUT ENERGY RECOVERY



### Who Are We

- A global, engineering-driven technology company delivering solutions for industrial fluid flow processes
- We drive meaningful, immediate cost savings and operational efficiencies for customers

### Our Approach

- Convert wasted pressure energy into a reusable asset
- Preserve or eliminate pumps that are subject to and destroyed by hostile process fluids

### Our Current Markets

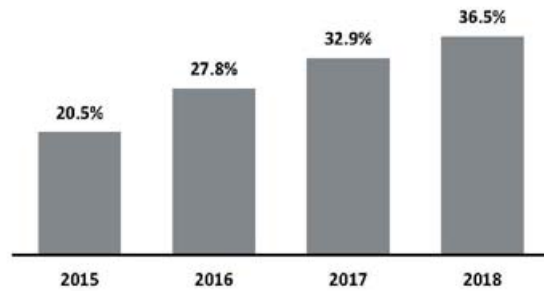
- Water
- Oil & Gas





- Energy Recovery is anchored by world-class engineers
- One-third of our company holds engineering degrees
  - 9 Ph.Ds and 14 Masters Degrees
  - Over 45% increase in R&D headcount since 2013
- Advanced testing capabilities in CA and at-scale in TX
- Rapid concept to prototype process

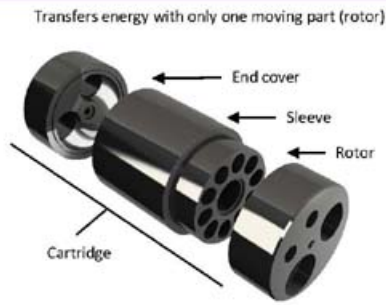
R&D Spend as % of OPEX



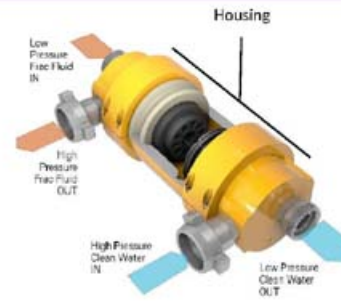
Our In-House Expertise Spans Critical Engineering Disciplines

<i>Fluid Mechanics &amp; Aerodynamics</i>	<i>Multi-Phase Flow</i>	<i>Material Science &amp; Coatings</i>
<i>Solid Mechanics</i>	<i>Dynamics &amp; Controls</i>	<i>Pumps and Turbines</i>
<i>CFD &amp; FEA</i>	<i>Acoustics &amp; Vibrations</i>	<i>Turbomachinery</i>
<i>Hydrodynamic Bearings</i>	<i>Tribology</i>	<i>Rotating Equipment</i>

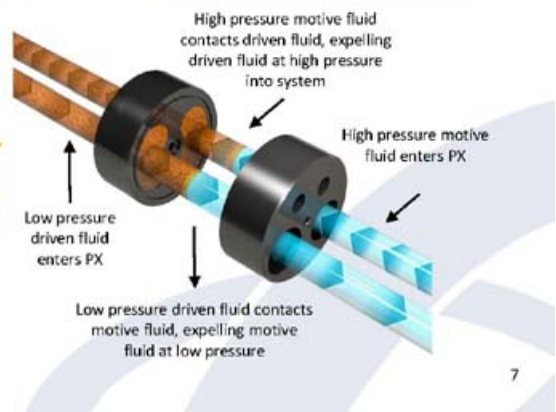
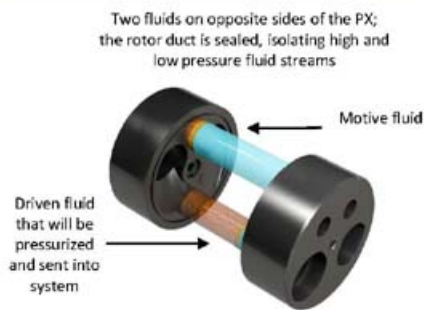
Pressure Exchanger Key Components



Fluid Flows in PX Pressure Exchanger



How the PX Pressure Exchanger Works



Water

Energy Recovery Devices



PX® Pressure Exchanger®



AT™ Turbocharger

Pumps



AquaBold™ High Pressure Pump



Vertical Circulation Pump



Horizontal Circulation Pump

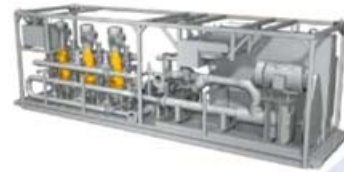
Oil & Gas

Hydraulic Fracturing Solution



VorTeq™

Mud Pumping Solution



MTeq™

**Advanced Ceramics Manufacturing Capabilities Help Drive Water Success**

- Vertically integrated ceramics manufacturing facility located in-house in CA
  - Creates potential competitive barrier to entry
- Best practices ensure high-quality production process
  - Approximately 99.9% of every PX Pressure Exchanger passes final stringent quality control before shipping

**Ceramics Expertise Directly Translates to Tungsten Carbide for Oil & Gas Applications**

- Similar manufacturing process for tungsten carbide PX Pressure Exchanger
  - Production follows comparable path – from powder to final machining
  - Rigid quality control and precision manufacturing



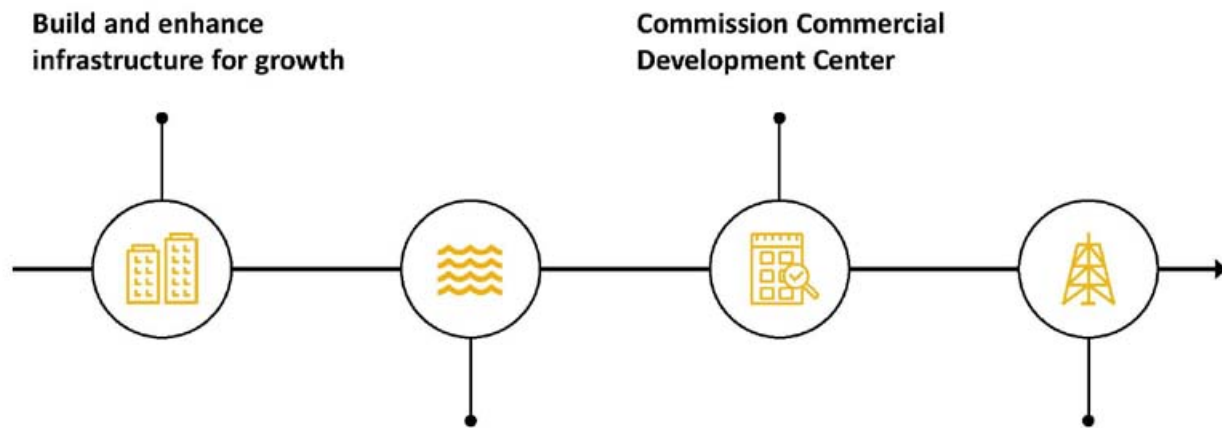
### Seasoned Water Salesforce and Global Distribution Channel

- Salesforce's tenure delivers strategic advantages in a relationship-driven market
  - Business unit leader Rodney Clemente, a 20 year industry veteran, has overseen rapid water growth
  - Entrenched, stable global water team
- Strong relationships and extensive database enable early project identification

### Oil & Gas Sales Strategy Differs Due to Our Position

- Licensing model is more effective for a newcomer in a large, mature and vastly competitive industry
  - De-risks market entry
  - The right partnerships provide quicker credibility
  - Eliminates need to build our own distribution channel
  - Reduces time to market



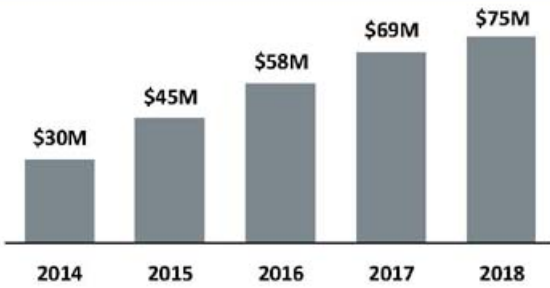


Grow and expand existing market presence in seawater desalination and beyond

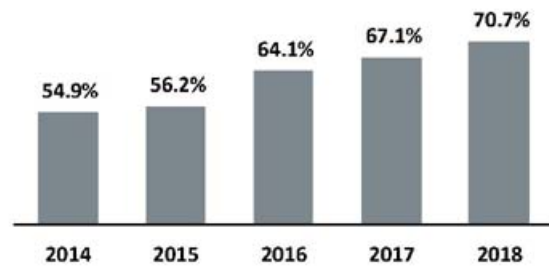
Commercialize VorTeq

## HISTORICAL FINANCIAL RESULTS

### Revenue: 25% CAGR 2014-2018



### Product Gross Margin Strength



### Net Cash and Securities Position of over \$91M

- We are positioned to make critical investments in our business
  - Organic or inorganic opportunities to expand our water business
  - Commercialization and subsequent launch of VorTeq, further development of operational infrastructure
- Financially prepared for market fluctuations

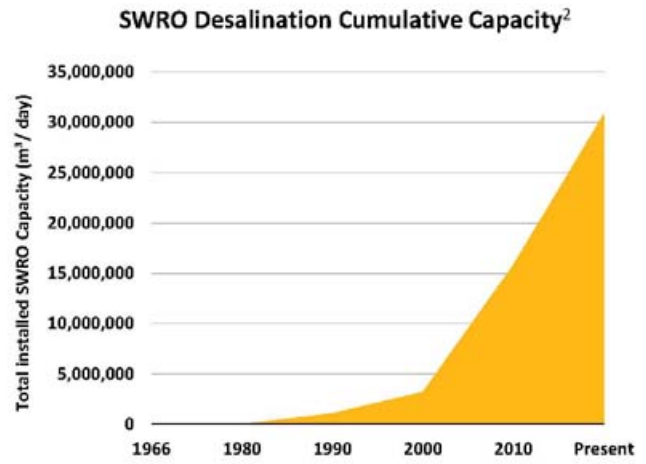


# Water – Our First Market Transformed

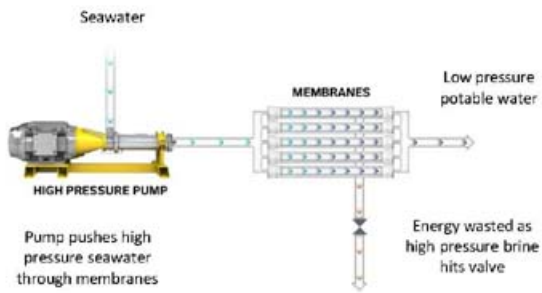




- The PX Pressure Exchanger, our flagship desalination solution, delivers meaningful benefits
  - Reduces energy costs by up to 60%, delivering nearly \$2B savings/year<sup>1</sup>
  - Lowers project lifecycle costs due to durability of products
  - SWRO plants using PXs produce enough fresh water to meet daily consumption of 52M people<sup>1</sup>
- The PX was first introduced in 1997
  - SWRO capacity began to grow exponentially around 2000
  - Shipped our 20,000<sup>th</sup> PX in Q1 2019



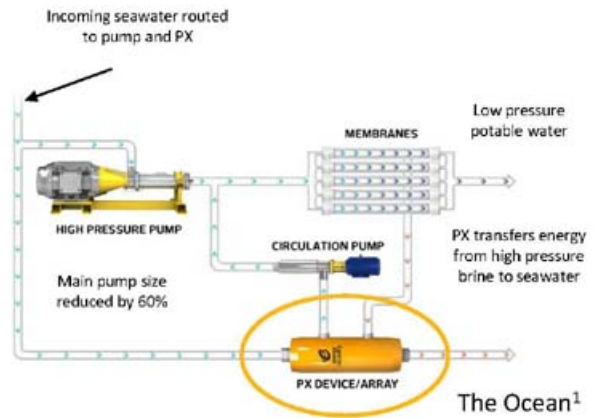
Without Energy Recovery Devices (ERDs)



The Ocean<sup>1</sup>

- Energy consumption and costs made SWRO uneconomical historically
- Approx. 60% of energy wasted during SWRO prior to implementation of ERDs

With PX Pressure Exchanger



The Ocean<sup>1</sup>

- PX reduces energy consumption and cost by approx. 60%
- Recycles energy, reduces high pressure pump size making SWRO more economical

Energy Recovery Devices

**PX Pressure Exchanger**

- Unmatched efficiencies for desalination up to 98%
- Highest uptime in the market (99.8%)
- Designed for up to 25+ years of useful life



**AT Turbocharger**

- Efficiencies up to 80%
- Volute insert technology for best efficiency range
- Lower initial capital costs



Pump Products

**AquaBold High Pressure Pump**

- Water lubricated bearing for long life and low maintenance
- Cast, duplex stainless steel hydraulics for higher quality and uptime

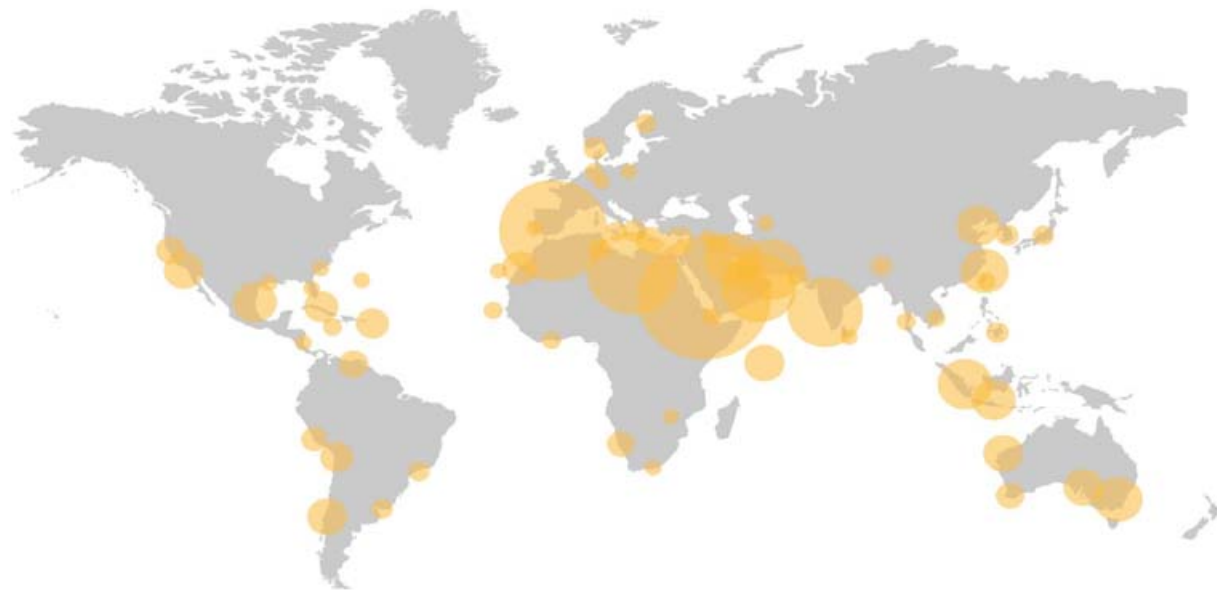


**Vertical and Horizontal Circulation Pumps**

- Specialized pumps pair with PX application
- Designed for long life with low maintenance
- Reliable performance in high suction pressure operating environments



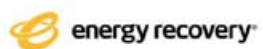
## GLOBAL REACH OF ENERGY RECOVERY PRODUCTS



~17M cubic meters/day of  
potable water produced<sup>1</sup>

~20,000 devices  
installed worldwide

~\$2.0B/year saved  
for customers<sup>2</sup>



<sup>1</sup>Assuming all deployed devices are in operation; <sup>2</sup>Energy Recovery estimates

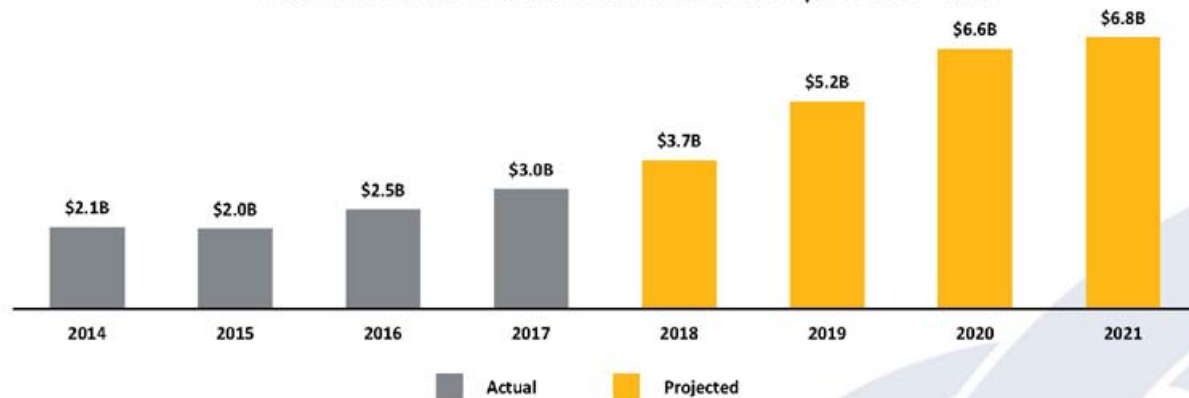
### Fresh water demand is increasing, creating global demand gaps

- The world will only have 60% of the water it needs by 2030<sup>1</sup>
- Potable water demand expected to increase by roughly 30 percent by 2050<sup>2</sup>
- Water demand for agriculture is growing as salinity intrusion negatively impacts farm land

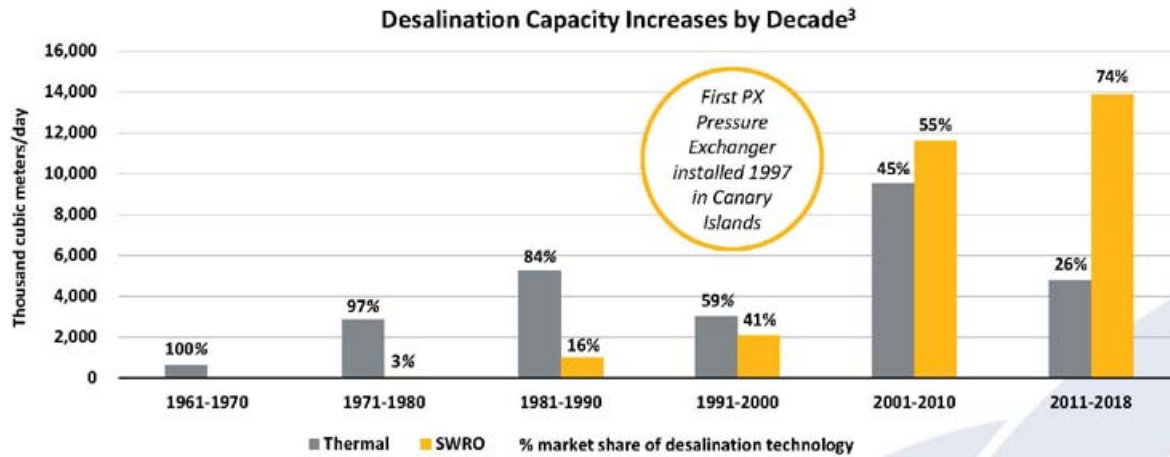
### Desalinating seawater is an increasingly important part of meeting global water demand

- We are well-positioned to be part of the global supply solution
- SWRO expertise and commanding market position offers a springboard to growth

Continued Growth in SWRO Desalination CAPEX Spend 2014 – 2021<sup>3</sup>



- Thermal seawater desalination was the dominant technology before the PX
- Operational savings from devices like the PX made SWRO more economic than thermal
- Thermal plants being replaced by SWRO, creating incremental opportunity for Energy Recovery
  - Potential for 100 - 150 new SWRO mega projects to maintain water supply status quo<sup>1</sup>
- SWRO savings potential is significant vs. thermal



**Consistent Revenue Growth**

- Mega projects continue to drive 2019 revenues
- Owing to our robust pipeline and backlog, we expect strong growth to continue into 2020 and beyond

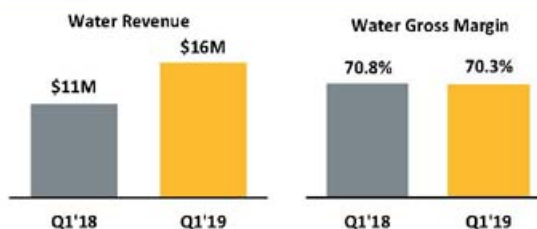
**Extended Growth Cycle**

- Upward revenue trend since 2014
- Evidence of extended cycle and upward shift in global demand curve

**Exceptional Margins**

- Water gross margins have grown from less than 54% in 2014 to roughly 70% today
- Margin strength provides optionality as growth initiatives are explored

**Water Revenue and Gross Margin**



**Historical Water Revenues**



**Historical Water Gross Margins**



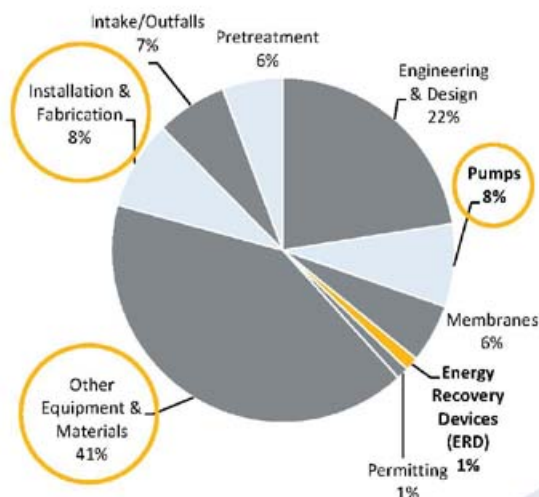
**We Currently Focus on Only 1-2% of a Project's Capital Spend**

- Energy recovery devices are critical to make plant operations affordable
  - We dominate this market
- Current standing serves as competitive barrier to entry
- Limited exposure to other areas of desalination spend
  - Small offering in Pumps (<1%)

**Leverage Our Market Leadership Presence**

- Our desalination position and distribution channel is a springboard to expand sales
- Focused on increasing offering in pumps and packaged/engineered solutions
- Utilize demand for and recognition of our strong PX Pressure Exchanger brand

**Average Desal Project Capital Spend<sup>1</sup>**




**Energy Recovery dominates the ERD segment and has select offerings in Pumps**





# Oil & Gas – Our Next Market to Transform



 energy recovery



- Our PX Pressure Exchanger technology can add strategic value to the Oil & Gas industry
- Water and Oil & Gas have similarities
  - High pressure fluid environments
  - Transference of hydraulic energy from a high-pressure fluid to a low-pressure fluid
- We have leveraged our Water experience to evolve our core competencies for Oil & Gas success
  - Advanced fluid & structural mechanics, bearing performance and material expertise of R&D
  - Precision manufacturing coupled with enhanced experimental capabilities
  - In-house simulation tools to model performance and results

### Pump Preservation

**Oil & Gas high pressure pumps present design and material challenges:** Susceptible to abrasion, erosion, fatigue and corrosion



**Our technology helps protect pumps:** hostile fracking and drilling fluids handled by the PX, clean water processed by pumps



- ✓ Increased life expectancy
- ✓ Increased reliability
- ✓ Reduced maintenance costs
- ✓ Lower CAPEX (less required redundancy)

VorTeq



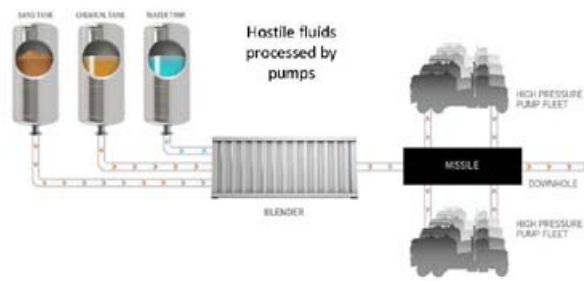
- Hydraulic fracturing technology solution
- Houses 12 PX Pressure Exchangers
- Designed to isolate and save frac pumps
- Addresses pump failure at frac sites
- Re-routes hostile frac fluid away from critical and costly pumps
- Currently in R&D stage

MTeq



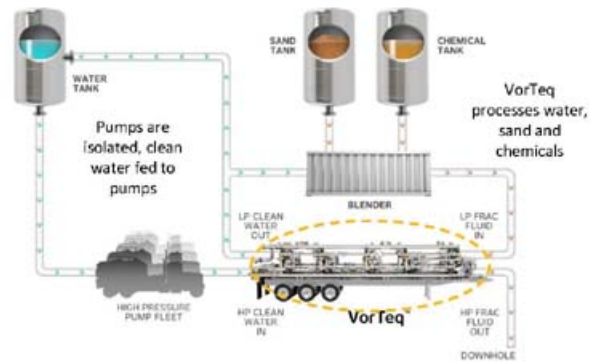
- Mud pumping technology solution
- Houses three PX Pressure Exchangers
- Designed to isolate and save mud pumps
- Addresses pump failure at drilling sites
- Re-routes hostile drilling fluid away from critical and costly pumps
- Currently in R&D stage

Status Quo



- Pumps process water, chemicals and sand
- Pump assets quickly destroyed

With VorTeq



- Maintenance savings (\$3M - \$4M<sup>1</sup>)
- Lower pump redundancy and CAPEX (\$1M - \$2M<sup>1</sup>)

**Longer-term it may be possible to pair VorTeq with centrifugal pumps  
Further decreases need for pumps (\$8M to \$12M savings<sup>1</sup>)**

**We are accumulating runtime in the testing yard at our Commercial Development Center**

- Energy Recovery personnel and equipment moved to our center in Q1 2019
- Rigorous VorTeq system testing and validation ongoing
  - Investing in additional personnel to expand testing capabilities to seven days/week
- Facility uses industry standard equipment to simulate the pressures, flow, and operating conditions of a real frac site
  - Allows us to confirm system reliability and repeatability in variable real-world conditions

**Expanded testing capabilities help accelerate the path to commercialization**

- Continuous access to testing resources speeds R&D cycle from design concept to validation and implementation
- Substantial progress made advancing and implementing system level design enhancements

**The Center is an investment in the long-term success of our Oil & Gas business**

- Houses advanced equipment to machine, inspect and test tungsten carbide components
- Enables rigorous testing of tungsten carbide pressure exchangers prior to field deployment

### Entered into a 15 year license agreement with Schlumberger Technology Corporation

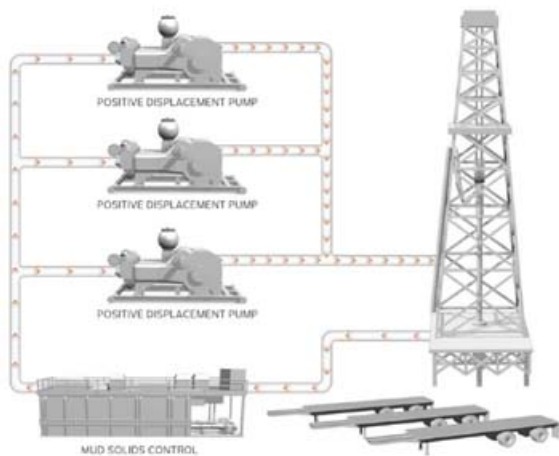
- Exclusive rights to VorTeq for on-shore hydraulic fracturing
  - Upfront **\$75M** exclusivity fee
  - Two separate **\$25M** milestone payments (for a total of **\$50M**) subject to certain KPIs
    - ✓ Milestone 1 (M1): Frac at product licensee test facility
    - ✓ Milestone 2 (M2): Frac at customer exploration & production (E&P) well
  - Commercialization Highlights:
    - ✓ \$1.5MM per VorTeq per year
    - ✓ Acceptance standards inclusive of M1 and M2, as well as other performance tests
    - ✓ Product licensee responsible for missile manufacturing; ERI provides PX Pressure Exchangers, housing and motors
    - ✓ Five years from first unit to full deployment across product licensee fleets

### Liberty Oilfield Services carve-out (our early-stage test partner)

- Rights for up to 20 VorTeq units for up to 5 years
- We provide full missile and cartridges – vendors have been qualified
- Commercialization standards differ and thus speed to market may be faster
- Pricing based on contractual ROIC

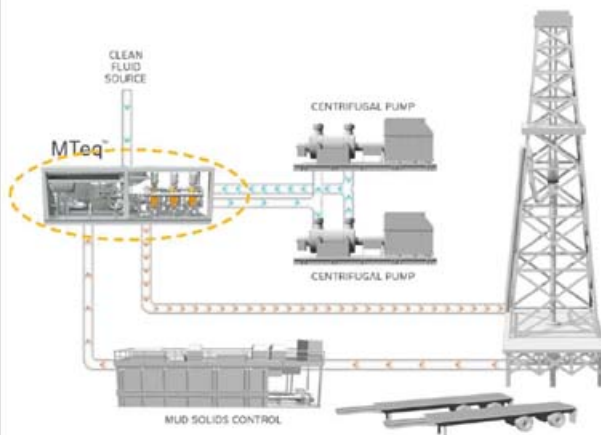
# MTEQ REPLACES POSITIVE DISPLACEMENT PUMPS, REDUCES COSTS

## Status Quo



Positive displacement pumps process drilling fluid today, wearing down and destroying pump assets

## With MTeq



Highly efficient centrifugal pumps process clean water, reduce/preserve pump assets, lengthen life and reduce costs

# STRATEGIC SUMMARY





### **Water: Steady, Visible Growth**

- Global water demand outlook continues to improve and leads to further optimism
- Robust backlog and pipeline driving expected water segment growth in 2019 and beyond
- Thermal to SWRO transition adds to potential long term demand trends
- Looking to leverage our current desalination position
  - Sales and distribution channel offers product portfolio expansion potential
  - Exploring organic and inorganic growth initiatives

### **Oil & Gas: Applying PX Pressure Exchanger Expertise to a New Industry**

- VorTeq – Focus remains on expediting path towards commercialization and shortening design iteration cycle
- Commercial Development Center yard is operational
  - Accumulating critical runtime at representative scale

### **Financially Flexible Balance Sheet**

- Solid net cash position allows for strategic options

THANK YOU

